

## *Services and Data Definitions*



## Revision History

| Version | Date     | Author        | Description of Changes   |
|---------|----------|---------------|--|
| 2.0     | 29/09/09 | O McLaughlin  | Ratified by LASSeO   |
| 1.3     | 13/07/09 | O McLaughlin  | Addition of Licencing Service USID 000F.<br>Amendment to Length value of CCDA item DF57  |
| 1.2     | 06/05/09 | O McLaughlin  | Amendments to some Special Needs service items lengths and data definitions  |
| 1.1     | 12/12/08 | S Bennetts    | Alteration to Car Parking service item DF02 'Parking Reference'<br>Addition of tags DF06 'Concession' and DF07 'Concession Expiry Date' to Leisure service.                |
| 1.0     | 22/09/08 | O Mc Laughlin | Ratified by LASSeO<br>Related Documents section amended  |
| 0.7     | 28/08/08 | O Mc Laughlin | Addition of services for Cash Collection, Car Parking and Cycle Parking  |
| 0.6     | 28/05/07 | O Mc Laughlin | Adopted by LASSeO  |
| 0.5     | 10/12/06 | O Mc Laughlin | Addition of Pan-London Numbering system<br>Addition of enumerated types for gender   |
| 0.4     | 25/05/06 | O Mc Laughlin | Addition of 'DOB Valid' to CCDA  |
| 0.3     | 10/02/06 | O Mc Laughlin | Addition of 'Last Edit Date' to CCDA<br>Addition of Employment Service<br>Format of Cardholder Number<br>Removal of maximum length information                             |
| 0.2     | 21/11/05 | O Mc Laughlin | Addition of 'UPRN' and 'Card Expiry Date' to CCDA<br>Addition of T-Scheme Authentication Level service<br>Addition of Membership Service<br>Updating of Special Needs Tags |
| 0.1     | 21/07/05 | E Tennant     | Initial version for review.  |

## Preface

### Scope

This document is intended as a single reference for all NSCP services regardless of the card platform.

### Intended Readership

Developers requiring to integrate with cards providing NSCP services.

### Related Documents

- [1] Smart Card Systems: Interoperable Citizen Services: Extended User Related Information: Part 1 – Definition of User Related Information and Implementation (CWA 13987-1)
- [2] UK Government Data Standards Catalogue
- [3] EN-1332-4 Identification Card Systems – Man-Machine Interface – Part4: Coding of user requirements for people with special needs.
- [4] ‘Your London’ Card Numbering Scheme
- [5] ISO 7816-4 Inter-industry command for Interchange Annex D
- [6] ISO 5218 – Gender Codes
- [7] ISO 7812 – Card Numbering System for the Identification of issuers
- [8] HMGs minimum requirements for the verification of identity of individuals
- [9] NSCP Mifare 4k Specification

## Glossary

---

| <i>Term</i> | <i>Definition</i>   |
|-------------|---|
| AID         | Application Identifier  |
| CCDA        | Common Cardholder Data Application  |
| NSCP        | National Smartcard Project  |
| RFU         | Reserved For Future Use   |
| NSCP        | Generic product name for outputs from the NSCP  |
| TLV         | Tag, Length, Value  |
| UCI         | Universal Card Holder Information   |
| USID        | Unique Services Identifier  |
| 'XY'        | Notation using the hexadecimal digits '0' to '9' and 'A' to 'F', equal to XY to the base 16 |

---

# Contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>NSCP Services.....</b>               | <b>1</b>  |
| 1.1      | CCDA.....                               | 1         |
| 1.2      | Health .....                            | 2         |
| 1.3      | Organ Donor .....                       | 2         |
| 1.4      | Leisure .....                           | 3         |
| 1.5      | Trust .....                             | 3         |
| 1.6      | Sure Start.....                         | 3         |
| 1.7      | Special Needs.....                      | 4         |
| 1.8      | tScheme Authentication Level.....       | 5         |
| 1.9      | Membership .....                        | 5         |
| 1.10     | Employment.....                         | 6         |
| 1.11     | Driver Permit.....                      | 6         |
| 1.12     | Cash Collection.....                    | 7         |
| 1.13     | Car Parking.....                        | 7         |
| 1.14     | Cycle Parking.....                      | 8         |
| 1.15     | Licensing.....                          | 8         |
| 1.16     | UCI .....                               | 9         |
| <b>2</b> | <b>Data Format Encoding .....</b>       | <b>10</b> |
| <b>3</b> | <b>Unique Service Identifiers .....</b> | <b>11</b> |
| <b>4</b> | <b>CardHolder Number .....</b>          | <b>12</b> |
| 4.1      | Standard Numbering System .....         | 12        |
| 4.2      | Multi-Issuer Numbering System .....     | 12        |

# 1 NSCP Services

## 1.1 CCDA

USID: 0001 'CCDA'

| Tag    | Data Item           | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|---------------------|----------------|-------------|----------------------|-------------------|-----------------|
| '50'   | Service Label       | Var            | ASCII       | M                    | Y                 | N               |
| '5F20' | Name                | Var*           | ASCII       | O                    | Y                 | Y               |
| '5F2B' | Date of Birth       | 4              | DATE        | M                    | Y                 | Y               |
| '5F35' | Gender              | 1              | BCD         | O                    | Y                 | Y               |
| 'DF23' | Cardholder Number*  | 8              | BCD         | M                    | Y                 | Y               |
| 'DF31' | Title               | Var*           | ASCII       | O                    | Y                 | Y               |
| 'DF32' | Forename            | Var*           | ASCII       | M                    | Y                 | Y               |
| 'DF33' | Surname             | Var*           | ASCII       | M                    | Y                 | Y               |
| 'DF39' | Home Tel            | Var*           | BCD         | O                    | N                 | Y               |
| 'DF3A' | Mobile              | Var*           | BCD         | O                    | N                 | Y               |
| 'DF3C' | Email               | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF53' | Initials            | Var*           | ASCII       | O                    | Y                 | Y               |
| 'DF56' | House Number / Name | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF57' | Postcode            | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF59' | Work Tel            | Var*           | BCD         | O                    | N                 | Y               |
| 'DF5B' | Resident            | 1              | ASCII       | O                    | Y                 | Y               |
| 'DF5A' | Ethnicity           | 1              | BCD         | O                    | N                 | Y               |
| 'DF5C' | Password            | Var            | ASCII       | O                    | N                 | Y               |
| 'DF5D' | Car Registration    | Var            | ASCII       | O                    | N                 | Y               |
| 'DF5E' | Notes               | Var            | ASCII       | O                    | N                 | Y               |
| 'DF64' | Local Authority     | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF65' | Concession          | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF66' | Sub-dwelling        | Var            | ASCII       | O                    | N                 | Y               |
| 'DF67' | Street Name         | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF68' | Locality            | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF69' | Post Town           | Var*           | ASCII       | O                    | N                 | Y               |
| 'DF6A' | County              | Var            | ASCII       | O                    | N                 | Y               |
| 'DF6B' | Address Valid       | 1              | ASCII       | O                    | N                 | Y               |
| 'DF6C' | UPRN                | 8              | BCD         | O                    | Y                 | Y               |
| 'DF6D' | Card Expiry Date    | 4              | DATE        | M                    | N*                | Y               |
| 'DF6E' | DOB Verified        | 1              | BCD         | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date      | 4              | DATE        | O                    | Y                 | Y               |

### Notes:

#### Data Lengths:

For items marked Var\*, the maximum lengths are those defined in related document [2].

#### Data Items:

Cardholder Number\* – see section 4 for further information on how this number is constituted.

#### Mandatory/Optional:

The mandatory items are the recommended minimum for local authority issued citizen cards.

Card Expiry Date:

The mandatory data items are the recommended minimum for local authority issued cards. It is mandatory that it be encoded in the card, but not mandatory that it appear within the CCDA. See related document [9].

Gender Enumerated Types:

| Value | Meaning     |
|-------|-------------|
| 0     | Unknown     |
| 1     | Male        |
| 2     | Female      |
| 9     | Unspecified |

As defined in related document [6].

## 1.2 Health

USID: 0002 'Health'

| Tag    | Data Item        | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                  |                |             |                      |                   |                 |
| '50'   | Service Label    | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Allergies        | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF02' | Blood Group      | 3              | ASCII       | M                    | Y                 | Y               |
| 'DF03' | Serious Illness  | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF04' | NHS Number       | 10             | BCD         | M                    | Y                 | Y               |
| 'DF05' | Medical Practice | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF7F' | Last Edit Date   | 4              | DATE        | O                    | Y                 | Y               |

## 1.3 Organ Donor

USID: 0003 'Organ Donor'

| Tag    | Data Item       | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|-----------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                 |                |             |                      |                   |                 |
| '50'   | Service Label   | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Ethnic Origin   | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF02' | Donate Kidney   | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF03' | Donate Heart    | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF04' | Donate Liver    | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF05' | Donate Cornea   | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF06' | Donate Lungs    | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF07' | Donate Pancreas | 1              | ASCII       | M                    | Y                 | Y               |
| 'DF7F' | Last Edit Date  | 4              | DATE        | O                    | Y                 | Y               |

## 1.4 Leisure

USID: 0004 'Leisure'

| Tag    | Data Item         | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|-------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                   |                |             |                      |                   |                 |
| '50'   | Service Label     | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Site No           | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF02' | Site Name         | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF03' | Mgmt System       | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF04' | Member Id         | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF06' | Concession        | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF07' | Concession Expiry | 4              | DATE        | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date    | 4              | DATE        | O                    | Y                 | Y               |

## 1.5 Trust

USID: 0005 'Trust'

| Tag    | Data Item            | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|----------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                      |                |             |                      |                   |                 |
| '50'   | Service Label        | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Authentication Level | 1              | BCD         | M                    | Y                 | Y               |
| 'DF02' | Verified Date        | 4              | DATE        | M                    | Y                 | Y               |
| 'DF03' | Expiry Date          | 4              | DATE        | M                    | Y                 | Y               |
| 'DF04' | Age Verified         | 1              | ASCII       | O                    | Y                 | Y               |
| 'DF05' | Student              | 1              | ASCII       | O                    | Y                 | Y               |
| 'DF06' | Student Expiry Date  | 4              | DATE        | O                    | Y                 | Y               |
| 'DF07' | Special Needs Code   | 1              | BCD         | O                    | Y                 | Y               |
| 'DF08' | Mobility Code        | 1              | BCD         | O                    | Y                 | Y               |
| 'DF09' | Mobil Expiry Date    | 4              | DATE        | O                    | Y                 | Y               |
| 'DF0E' | Address Verified     | 1              | ASCII       | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date       | 4              | DATE        | O                    | Y                 | Y               |

## 1.6 Sure Start

USID: 0006 'Sure Start'

| Tag    | Data Label    | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|---------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |               |                |             |                      |                   |                 |
| '50'   | Service Label | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Expiry Date   | 4              | DATE        | M                    | Y                 | Y               |
| 'DF02' | Child ID1     | 2              | BCD         | M                    | Y                 | Y               |
| 'DF03' | Child Name1   | Var*           | ASCII       | M                    | Y                 | Y               |
| 'DF04' | Child ID2     | 2              | BCD         | O                    | Y                 | Y               |
| 'DF05' | Child Name2   | Var*           | ASCII       | O                    | Y                 | Y               |
| 'DF06' | Child ID3     | 2              | BCD         | O                    | Y                 | Y               |
| 'DF07' | Child Name3   | Var*           | ASCII       | O                    | Y                 | Y               |
| 'DF08' | Child ID4     | 2              | BCD         | O                    | Y                 | Y               |

|        |                |      |       |   |   |   |
|--------|----------------|------|-------|---|---|---|
| 'DF09' | Child Name4    | Var* | ASCII | O | Y | Y |
| 'DF0A' | Child ID5      | 2    | BCD   | O | Y | Y |
| 'DF0B' | Child Name5    | Var* | ASCII | O | Y | Y |
| 'DF0C' | Child DOB1     | 4    | DATE  | M | Y | Y |
| 'DF0D' | Child DOB2     | 4    | DATE  | O | Y | Y |
| 'DF0E' | Child DOB3     | 4    | DATE  | O | Y | Y |
| 'DF0F' | Child DOB4     | 4    | DATE  | O | Y | Y |
| 'DF10' | Child DOB5     | 4    | DATE  | O | Y | Y |
| 'DF7F' | Last Edit Date | 4    | DATE  | O | Y | Y |
|        |                |      |       |   |   |   |

## 1.7 Special Needs

USID: 0007 'Special Needs'

| Tag    | Data Label                      | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|---------------------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                                 |                |             |                      |                   |                 |
| '50'   | Service Label                   | Var            | ASCII       | M                    | Y                 | N               |
| 'DF50' | Symbols                         | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF51' | Character Size                  | 1              | BCD         | O                    | Y                 | Y               |
| 'DF52' | Screen Colour                   | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF53' | Colour Avoidance                | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF54' | Position of Screen              | 1              | BCD         | O                    | Y                 | Y               |
| 'DF55' | Speech Output                   | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF56' | Sound Amplification             | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF57' | High Frequency Amplification    | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF58' | Low Frequency Amplification     | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF59' | Input Requirements              | 2              | BINARY      | O                    | Y                 | Y               |
| 'DF5E' | Keyboard Characteristics        | 2              | BINARY      | O                    | Y                 | Y               |
| 'DF5F' | SMS Communication               | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF6B' | Non-Keyboard Input Requirements | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF5A' | Touch Screen                    | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF5B' | Position of Input Device        | 1              | BCD         | O                    | Y                 | Y               |
| 'DF5C' | Time-outs                       | 1              | BCD         | O                    | Y                 | Y               |
| 'DF2D' | Language Preferences            | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF5D' | Interface Complexity Level      | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF61' | Screen Reader                   | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF62' | Links                           | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF63' | Speech Rate                     | 1              | BCD         | O                    | Y                 | Y               |
| 'DF64' | Screen Enhancement Software     | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF65' | Font                            | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF66' | Icons                           | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF67' | Mouse Buttons                   | 1              | BINARY      | O                    | Y                 | Y               |
| 'DF68' | Pointer                         | 1              | BINARY      | O                    | Y                 | Y               |

|        | Characteristics                              |     |        |   |   |   |
|--------|--|-----|--------|---|---|---|
| 'DF69' | On-screen Keyboard                           | 1   | BINARY | O | Y | Y |
| 'DF6A' | Numeric, Time and Date Presentation          | 1   | BINARY | O | Y | Y |
| 'DF6C' | ALT Text                                     | 1   | BINARY | O | Y | Y |
| 'DF6D' | Speech Output of non-alphanumeric characters | 1   | BINARY | O | Y | Y |
| 'DF6F' | Braille Display                              | 1   | BINARY | O | Y | Y |
| 'DF70' | Captions                                     | 1   | BINARY | O | Y | Y |
| 'DF71' | Audio Description                            | 1   | BINARY | O | Y | Y |
| 'DF72' | Clean Audio                                  | 1   | BINARY | O | Y | Y |
| 'DF73' | Menu Selection Mode                          | 1   | BINARY | O | Y | Y |
| 'DF74' | Scrolling Mode                               | 1   | BINARY | O | Y | Y |
| 'DF76' | Animation                                    | 1   | BINARY | O | Y | Y |
| 'DF77' | Biometric Characteristics                    | 2   | BINARY | O | Y | Y |
| 'DF6E' | Visible Output of Audible Promptings         | 1   | BINARY | O | Y | Y |
| 'DF7A' | Duration of Visible Signal                   | 1   | BCD    | O | Y | Y |
| 'DF78' | Pre-stored Message                           | 1   | BINARY | O | Y | Y |
| 'DF79' | Variable Message                             | Var | ASCII  | O | Y | Y |
| 'DF7F' | Last Edit Date                               | 4   | DATE   | O | Y | Y |

See related document [.3] for a full description of special needs codings.

## 1.8 tScheme Authentication Level

USID: 0008 'Authentication'

| Tag    | Data Item      | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|----------------|----------------|-------------|----------------------|-------------------|-----------------|
| '50'   | Service Label  | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Level          | 1              | BCD         | M                    | Y                 | Y               |
| 'DF02' | Verified Date  | 4              | DATE        | M                    | Y                 | Y               |
| 'DF03' | Expiry Date    | 4              | DATE        | M                    | Y                 | Y               |
| 'DF7F' | Last Edit Date | 4              | DATE        | O                    | Y                 | Y               |

See related document [8] for a description of tScheme Authentication levels.

## 1.9 Membership

USID: 0009 'Membership'

| Tag    | Data Item      | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|----------------|----------------|-------------|----------------------|-------------------|-----------------|
| '50'   | Service Label  | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Library Number | Var            | ASCII       | O                    | Y                 | Y               |

|        |                |     |       |   |   |   |
|--------|----------------|-----|-------|---|---|---|
| 'DF02' | Leisure Number | Var | ASCII | O | Y | Y |
| 'DF03' | Access Number  | Var | ASCII | O | Y | Y |
| 'DF7F' | Last Edit Date | 4   | DATE  | O | Y | Y |

## 1.10 Employment

USID: 000A 'Employment'

| Tag    | Data Item          | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|--------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                    |                |             |                      |                   |                 |
| '50'   | Service Label      | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Pay Number         | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF02' | Primary Assignment | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date     | 4              | DATE        | O                    | Y                 | Y               |

## 1.11 Driver Permit

USID: 000B 'Driver Permit'

| Tag    | Data Item                  | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|----------------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                            |                |             |                      |                   |                 |
| '50'   | Service Label              | Var            | ASCII       | M                    | Y                 | N               |
| 'DF03' | Employment Dept            | Var            | ASCII       | O                    | O                 | Y               |
| 'DF04' | Employment Section         | Var            | ASCII       | O                    | O                 | Y               |
| 'DF05' | Occupation                 | Var            | ASCII       | O                    | O                 | Y               |
| 'DF06' | Driver Licence Number      | 16             | ASCII       | O                    | O                 | Y               |
| 'DF07' | Driver Licence Expiry Date | 4              | DATE        | O                    | O                 | Y               |
| 'DF08' | Driver Licence Category    | Var            | ASCII       | O                    | O                 | Y               |
| 'DF09' | Driver Licence Type        | Var            | ASCII       | O                    | O                 | Y               |
| 'DF0A' | Driver Conviction          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF0B' | Driver Penalty             | Var            | ASCII       | O                    | O                 | Y               |
| 'DF0C' | Driver Main Category       | 1              | BCD         | O                    | O                 | Y               |
| 'DF0D' | Driver Category A          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF0E' | Driver Category B          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF0F' | Driver Category C          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF10' | Driver Category D          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF11' | Driver Category E          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF12' | Driver Category F          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF13' | Driver Category G          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF14' | Driver Category H          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF15' | Driver Category I          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF16' | Driver Category J          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF17' | Driver Category K          | Var            | ASCII       | O                    | O                 | Y               |
| 'DF18' | Driver Category L          | Var            | ASCII       | O                    | O                 | Y               |

|        |                           |     |       |   |   |   |
|--------|---------------------------|-----|-------|---|---|---|
| 'DF19' | Driver Category M         | Var | ASCII | O | O | Y |
| 'DF1A' | Driver Category N         | Var | ASCII | O | O | Y |
| 'DF1B' | Driver Permit Towing      | Var | ASCII | O | O | Y |
| 'DF1C' | Department Supervisor     | Var | ASCII | O | O | Y |
| 'DF1D' | Driver Permit Issue Date  | 4   | DATE  | O | O | Y |
| 'DF1E' | Driver Permit Expiry Date | 4   | DATE  | O | O | Y |
| 'DF1F' | HGV Licence Expiry Date   | 4   | DATE  | O | O | Y |
| 'DF7F' | Last Edit Date            | 4   | DATE  | O | O | Y |

## 1.12 Cash Collection

USID: 000C 'Cash Collection'

| Tag    | Data Item              | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|------------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                        |                |             |                      |                   |                 |
| '50'   | Service Label          | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Primary Account Number | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF7F' | Last Edit Date         | 4              | DATE        | O                    | Y                 | Y               |

### Notes:

DF01 must be present and identifies the Primary Account Number (PAN).

## 1.13 Car Parking

USID: 000D 'Car Parking'

| Tag    | Data Item                | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|--------------------------|----------------|-------------|----------------------|-------------------|-----------------|
|        |                          |                |             |                      |                   |                 |
| '50'   | Service Label            | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Parking Indicator        | 1              | BINARY      | M                    | Y                 | Y               |
| 'DF02' | Parking Scheme Reference | 2              | BCD         | M                    | Y                 | Y               |
| 'DF03' | Last Used Date/Time      | 7              | BCD         | M                    | Y                 | Y               |
| 'DF04' | Vehicle Registration     | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date           | 4              | DATE        | O                    | Y                 | Y               |

### Notes:

'DF01' is a single byte indicator showing if the service is active or inactive. The valid values for this field are:

| TRUE |    |    |    |    |    |    |    |
|------|----|----|----|----|----|----|----|
| b7   | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| 0    | 0  | 0  | 0  | 0  | 0  | 0  | 1  |

| FALSE |    |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|----|
| b7    | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

'DF03' is a 7 byte field containing a date and a time. The date component is in the conventional DATE format, and the time element is 3 byte field forming hour:minutes:seconds in BCD format.

Example. 2<sup>nd</sup> of June, 2008 at 12 minutes and 59 seconds after 11pm.

## 1.14 Cycle Parking

USID: 000E 'Cycle Parking'

| Tag    | Data Item                | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|--------------------------|----------------|-------------|----------------------|-------------------|-----------------|
| '50'   | Service Label            | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Parking Indicator        | 1              | BINARY      | M                    | Y                 | Y               |
| 'DF02' | Parking Scheme Reference | Var            | ASCII       | M                    | Y                 | Y               |
| 'DF03' | Last Used Date/Time      | 7              | BCD         | M                    | Y                 | Y               |
| 'DF7F' | Last Edit Date           | 4              | DATE        | O                    | Y                 | Y               |

### Notes:

'DF01' – as for Service 000D

'DF03' - as for Service 000D

## 1.15 Licensing

USID: 000F 'Licensing'

| Tag    | Data Item      | Length (bytes) | Data Format | Mandatory / Optional | Mifare™ 4K Yes/No | Javacard Yes/No |
|--------|----------------|----------------|-------------|----------------------|-------------------|-----------------|
| '50'   | Service Label  | Var            | ASCII       | M                    | Y                 | N               |
| 'DF01' | Alcohol        | Var            | ASCII       | O                    | Y                 | Y               |
| 'DF7F' | Last Edit Date | 4              | DATE        | O                    | Y                 | Y               |

### Notes:

'DF01', and all subsequent tags in this service, will contain a Licence Number or Identifier.

**1.16 UCI**

USID: 0065 'UCI'

Constructed data object using tags defined in related document [1].

## 2 Data Format Encoding

| <b>Data Format</b> | <b>Value</b> | <b>Definition</b>  |
|--------------------|--------------|--|
| ASCII              | '00'         | Text data coded using ASCII codes.   |
| BCD                | '01'         | Standard unsigned BCD encoded number. The most significant byte shall be encountered first in the data stream, also known as "big endian". |
| DATE               | '02'         | Unsigned BCD encoded as CCYYMMDD.  |
| BINARY             | '04'         | Binary coded data.   |

### 3 Unique Service Identifiers

| <b>USID</b> | <b>Service</b>               |
|-------------|------------------------------|
|             |                              |
| 0001        | CCDA                         |
| 0002        | Health                       |
| 0003        | Organ Donor                  |
| 0004        | Leisure                      |
| 0005        | Trust                        |
| 0006        | Sure Start                   |
| 0007        | Special Needs                |
| 0008        | tScheme Authentication Level |
| 0009        | Membership                   |
| 000A        | Employment                   |
| 000B        | Driver Permit                |
| 000C        | Cash Collection              |
| 000D        | Car Parking                  |
| 000E        | Cycle Parking                |
| 000F        | Licensing                    |
| 0065        | UCI                          |

## 4 CardHolder Number

### 4.1 Standard Numbering System

The cardholder number is a 16-digit value, stored on the card in BCD format. The first 6 digits are the IIN number, acquired from APACS, which identifies the scheme. This 6 digit pre-fix is identical for all cards within a scheme, and allows other schemes to be recognized.

The next 7 digits are the card sequence number which identifies the citizen.

This is followed a check digit calculated across the preceding 13 digits.

Finally there is a 2 digit issue number. This increments every time a citizen is issued a replacement card.

Example: Card holder number 6336890000010503

|              |                 |             |              |
|--------------|-----------------|-------------|--------------|
| 633689       | 0000010         | 5           | 03           |
| APACS Number | Sequence Number | Check Digit | Issue Number |

See related document [7] on card numbering.

### 4.2 Multi-Issuer Numbering System

Some authorities may wish to join with other authorities to create schemes where there is a single scheme identifier, but individual configuration and identity remain.

The London SmartCard Executive Group (LSEG) has established a precedent for this by providing a single Pan-London APACS number, and a numbering system which allows all the London Boroughs their own unique identifier within the number format.

Example: Card holder number 6337680300000105

|                     |               |                 |             |
|---------------------|---------------|-----------------|-------------|
| 633768              | 03            | 0000010         | 5           |
| London APACS Number | Issuer Number | Sequence Number | Check Digit |

The Issuer Number identifies a specific local authority, making it possible for all the London boroughs to participate in a single scheme. LSEG has allocated issuer numbers for all 33 London boroughs. Other regional or urban groups may wish to adopt a similar strategy. See related document [4].

To maintain compatibility with the existing 16 digit card numbering system within NSCP, the Issue Number has been removed from this alternative. However, the range of the Sequence Number available to each issuer ( 0 – 9,999,999) leaves ample scope for cardholders to be given new numbers for replacement cards.

**\*\* End of Document \*\***